

Problem Statement:

The purpose of this task is to:

- Define proper KPI's
- Create a dashboard for the retention manager reflecting the KPI's
- Write a short email to him (the engagement partner) explaining your findings, and include suggestions as to what needs to be changed

Datasource :

Dataset used for this task was presented by Pwc and customer churn Retention dataset:

Dataset: Customer Churn Retention

Data Preparation:

Completed the Data transformation in Power Query and the dataset loaded into Microsoft Power BI Desktop for modeling.

Customer Churn dataset is table named:

- Customer churn dataset which has 23 columns and 7043 rows of observation

Data Cleaning for the dataset was done in the power query editor as follows:

- Replaced the value is Senior Citizen N converted Young and Y converted Senior Citizen
- Removed Unnecessary columns
- Removed Unnecessary rows
- Each of the columns in the table were validated to have the correct data type
- Tenure column was removed and was replaced by adding a conditional columns giving following conditions:-

Add Conditional Column

Add a conditional column that is computed from the other columns or values.

New column name

Tenure Groups

	Column Name	Operator	Value		Output
If	tenure	is less than	1	Then	> 1
Else If	tenure	is less than	20	Then	1-20
Else If	tenure	is less than	40	Then	21-40
Else If	tenure	is less than	60	Then	41-60
Else If	tenure	is less than	80	Then	61-80
Else If	tenure	is greater than	80	Then	<80

Add Clause

Else

null

OK

Cancel

Data Analysis (DAX):

Measures used in all visualization are:

```
1 Average Monthly Charges = AVERAGE('01 Churn-Dataset'[MonthlyCharges])
```

```
Total Average Charges = AVERAGE('01 Churn-Dataset'[TotalCharges])
```

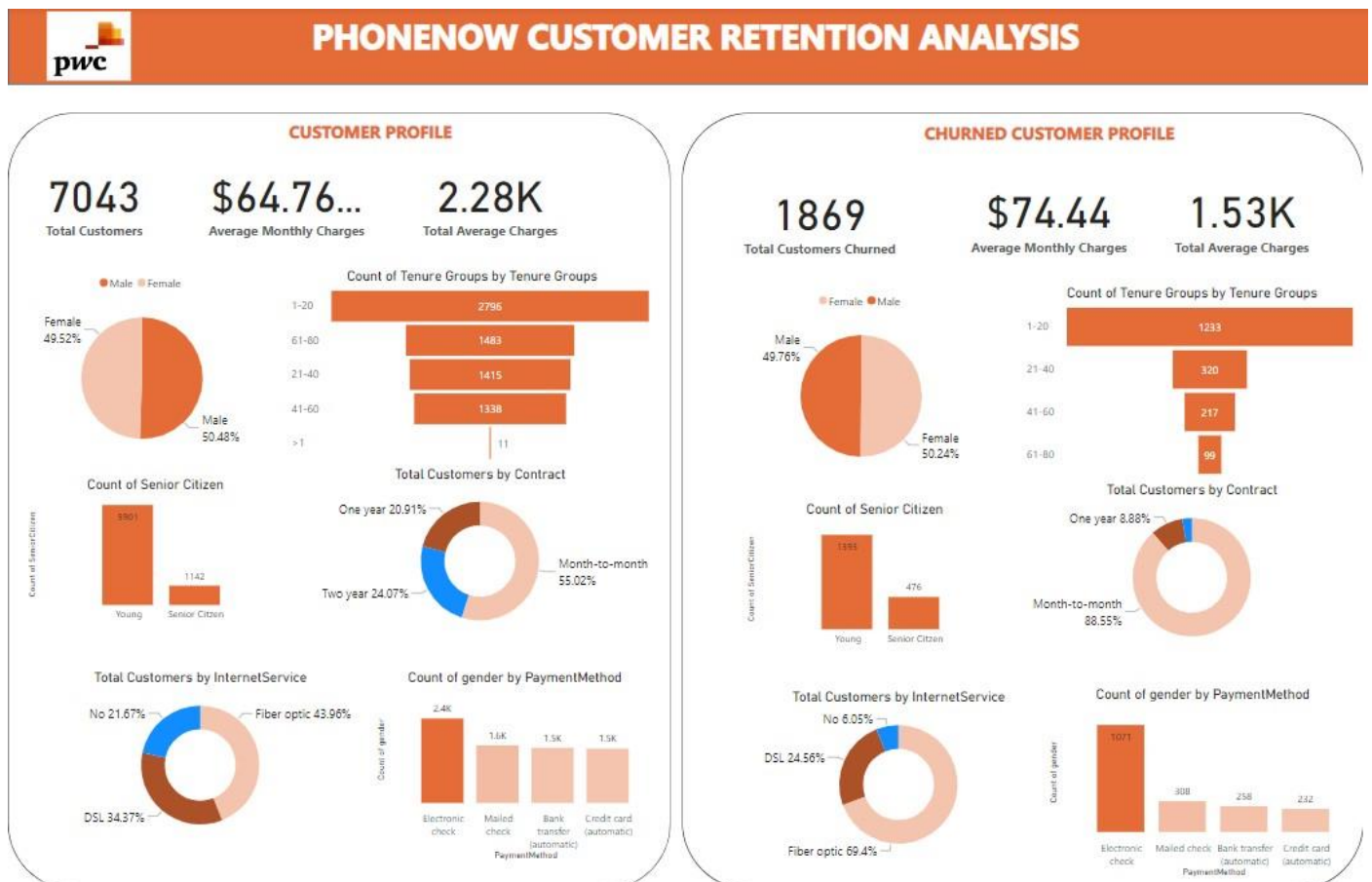
```
Total Customers = COUNT('01 Churn-Dataset'[Churn])
```

```
Total Customers Churned = CALCULATE(COUNT('01 Churn-Dataset'[Churn]),FILTER('01 Churn-Dataset','01 Churn-Dataset'[Churn]
="Yes"))
```

Data Visualization (Dashboard):

Data visualization for the data analysis (DAX) was done in Microsoft Power BI Desktop:

Shows visualizations from Customer Retention analysis:



Insights:

As shown the data Visualization, It can be deduced that:

- Most of the customers on Month-to-Month contract joined the company.
- The company is at risk of losing customers based on the results from analysis if they decided to month-to-month contract.
- It a lot of customers had an issue with Fiber Optic. Up to 70% of the customers churned were using Fiber Optic as their Internet Services.
- Similarly customers with month to month contract has highest churned customers nearly 88%
- Also there is no major changes based on gender for customers that have churned
- Age group for the customers between 1-20 are the most churned customers

Suggestions

1. **Offer longer-term contracts:** As many customers who are on month-to-month contracts are churning, the company can encourage customers to commit to longer-term contracts by offering discounted rates. This can potentially reduce churn rates and increase customer retention.
2. **Improve Fiber Optic Services:** Given that a large percentage of customers who churned were using Fiber Optic services, the company should focus on improving the quality and reliability of their Fiber Optic services. This may involve investing in better equipment, enhancing maintenance processes, and improving customer service to address any issues that arise.
3. **Conduct customer satisfaction surveys:** To gain insights into why customers are leaving, the company can conduct customer satisfaction surveys. These surveys can provide valuable feedback about customers' experiences with the company and highlight areas that need improvement to retain customers.
4. **Target younger age groups in marketing efforts:** Since younger customers are the most likely to churn, the company can tailor their marketing efforts to appeal to this age group. This could involve promoting services through social media platforms such as Instagram and TikTok or partnering with influencers who have a large following in this age group.
5. **Develop retention strategies for month-to-month contract customers:** As customers on month-to-month contracts are the most likely to churn, the company can develop retention strategies specifically for this group. This may include offering incentives or discounts to customers who renew their contracts or providing additional services that make it harder for customers to switch to a competitor.